

REMARKS

The application has been fully reviewed in light of the Final Office Action dated July 13, 2005 and the Advisory Action dated September 28, 2005 (in view of Applicants previously submitted, but un-entered, Response After Final of September 16, 2005). Claims 1, 4-9, 11-15, 17, 18 and 20-26 are pending, with claims 1, 9, 17, 25 and 26 being independent. Claims 1, 9, 11-13, 15, 17, 25 and 26 have been amended. Claims 2, 10 and 16 have now been cancelled without prejudice and/or disclaimer of subject matter. Claims 3 and 19 were previously cancelled without prejudice and/or disclaimer of subject matter. The claims stand rejected under §§ 102 and/or 103.

§102 & §103 Rejections

Claim 1, 2, 4-18 and 20-26 were rejected under 35 U.S.C. §102 and §103 as reciting subject matter that would have been anticipated over U.S. patent no. 5,543,607 (Watanabe et al.), and obvious over Watanabe et al. in view of U.S. patent no. 5,420,606 (Begum et al.). For the following reasons, Applicants respectfully submit that the claimed invention is patentable over the prior art.

The Invention

Claim 1 is directed to an apparatus for transporting items for purchase at a checkout location which includes a conveyor having an upstream end for loading one or more items for purchase and a scanning area positioned proximate a downstream end of the conveyor for scanning one or more items for purchase received from the downstream end of the conveyor. The one or more items are previously loaded onto the upstream end of the conveyor and transported to the downstream end. The apparatus also includes a user proximity sensor positioned at the scanning area for sensing a user at the scanning area and a start sensor positioned proximate the upstream end of the conveyor, where the conveyor transports one or more items toward the scanning area upon the start sensor sensing one or more items placed

adjacent thereto prior to the proximity sensor sensing a user. The apparatus further includes a stop sensor positioned proximate the downstream end of the conveyor near the scanning area where the conveyor is stopped upon one or more items being sensed by the stop sensor.

Independent claims 9, 17, 25 and 26 recite the same patentable features.

The claimed invention, as shown in Fig. 2 and described in the specification, is a self-checkout system having a unique conveyor system and arrangement thereof. It is a feature of the claimed invention that a conveyor for a self-checkout system transports items to the scanning area *without the user being present at the scanning area first* (i.e., the user proximity sensor does not sense the presence of the user at the scanning area). Specifically, the claimed invention allows a shopper to load an upstream end of a conveyor 210 of the self-checkout system with items for purchase from, say, a cart, prior to the shopper approaching a scanning area 236. After loading up the conveyor, the shopper may then positioned himself/herself in front of the scanning area (located proximate the downstream end of the conveyor), where the shopper can pick up items off of the downstream end 234 of the conveyor, scan the items in the scanning area 236, and place the scanned item into a bag (for example) in the bagging area 226.

The Cited Prior Art

Watanabe et al. is understood by Applicants to be directed to self-checkout system and point-of-sale system. Figures 1A and 1B are representative of the system disclosed in Watanabe et al. To that end, the system includes a belt conveyor, sensors for detecting the products (front sensors; rear sensors), a scanner for reading out, in the inside thereof, a bar code of products, a stocker divided into two portions for stacking the commercial products, a display, a keyboard, a stopper, switching lever for switching the stocker for stocking the commercial products, a printer a magnetic card reader/writer, a scanner, and a sensor for detecting an operator. In column 7, lines 50-56, Watanabe et al. states that the very first thing that occurs when using the system, is that the operator sensor detects the operator standing in front of the self-checkout system.

Fig. 3 of Watanabe et al., and the accompanying written description, is understood to be directed to a commercial product self-checkout system having a touch panel display 1-2, a printer 3, a card reader 4, a touch scanner 5, a commercial product casted portion to a belt conveyor 6, a commercial product recognizing unit having a CCD camera 7, located in the middle of the transport path of the conveyor, and a commercial product stocking unit having a commercial product stocker 10 (Fig. 3; column 9, lines 45-64).

In the Fig. 3 embodiment, the purchaser scans the items using the touch scanner 5, places the items on the conveyor where they are then transported to the commercial product stacking unit; in other words, the conveyor in Fig. 3 is used to transport items away from a scanning area not towards it for scanning. The conveyor in Fig. 3 is not used by a shopper to load items for scanning. Moreover, the passing of the purchaser is interrupted, via stopper 9. Thus, if one were to argue that Fig. 3 disclosed the claimed embodiments, use of the stopper effectively teaches away from the claimed invention (see generally, column 9, line 65, through column 10, line 5).

Belgium et al. is understood to disclose an electronic coupon verification system. Each shopper is provided with an electronic communications device having a display for displaying a graphic of a redemption coupon that represents a discount for an item in the store available for purchase. The communications device includes a selection button to enter the selection of the coupon indicating the user's desire to redeem the coupon and a memory to record the selection until the shopper reaches the checkout counter (see Abstract). Applicants do not understand why this reference was cited in the outstanding Office Action, as there are no statements in the Action which discuss the reference.

Analysis

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." M.P.E.P. 2131, quoting, Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987).

With regard to obviousness, for one to establish a *prima facie* case of obviousness, three criteria must be met:

1. there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings;
2. there must be a reasonable expectation of success; and
3. the prior art references must teach or suggest all the claim limitation.

M.P.E.P. §2143.

After a careful review of the cited prior art and the claimed invention, Applicants maintain that the claimed invention is patentable and is neither anticipated nor obvious over the cited prior art. In particular, nothing could be found in either Watanabe et al. and Begum et al., either alone or in combination, which discloses, teaches or suggest the invention recited in claims 1, 9, 17, 25 and 26. More specifically, Applicants simply could not find all the features recited in the independent claims in either reference alone (i.e., neither reference anticipates the claimed invention), or any teaching or suggestion of the claimed features in a combination of the cited prior art.

In particular, neither reference, when taken alone or in combination, discloses, teaches or suggest an apparatus *having a scanning area positioned proximate a downstream end of a conveyor to receive products off of the conveyor for scanning/purchase*, and/or *a start sensor positioned at an upstream end of the conveyor*, where the conveyor transports one or more items toward the scanning area upon the start sensor sensing one or more items placed adjacent thereto on the conveyor, *prior to the proximity sensor at the scanning area sensing a user*. While Fig. 1A of Watanabe et al. discloses an operator sensor 63 for detecting an operator and commercial product sensor 52 for sensing a commercial product optically, the Watanabe et al. does not disclose the arrangement of features as described, and/or the arrangement of such sensors as recited in the instant claims, nor does the reference disclose any corresponding claimed method step of the present invention.

The above noted claimed features allow a shopper to load a conveyor of a self-checkout system with items for purchase *prior to* scanning the items in a scanning area, or a shopper being positioned at the scanning area. While the shopper places items on the conveyor, the start sensor starts the conveyor so that the placed items are transported toward the scanning area (prior to the shopper being positioned at the scanning area). If the shopper is not at the scanning area, an item is transported just beyond the start sensor, and the conveyor stops until another item is placed on the conveyor adjacent the start sensor. When an item which was initially placed on the conveyor is sensed by the stop sensor located at the downstream end of the conveyor (e.g., adjacent the scanning area), the conveyor does not continue to transport items (i.e., the conveyor is full). Accordingly, the shopper may then walk over to the scanning area and begin scanning items and placing them in the bagging area thereafter. The proximity sensor senses the shopper is present at the scanning area and allows the conveyor to move once all items that block the stop sensor are cleared. See Fig. 4.

Accordingly, neither Watanabe et al. nor Begum et al. include *a conveyor - scanning area and sensor arrangement* as recited in the claims (and disclosed in the specification). Moreover, neither reference, discloses, teaches or suggests a method of transporting items along a conveyor belt in a self-checkout apparatus, where the conveyor is started in a downstream direction upon a first item being placed in proximity to a start sensor *prior to a user being sensed by a user proximity sensor provided at a processing area*. Applicants respectfully submit that the above noted arrangement of features would not be considered obvious in view of the cited art.

Accordingly, none of the prior art of record discloses, teaches or suggests the deficiencies noted by Applicants of the cited prior art. Thus, Applicants respectfully submit that the claims 1, 9, 17, 25 and 26 are patentable over the cited prior art. Since the remainder of the pending claims are each dependent upon one or another of the independent claims, they are patentable for the same reasons. Accordingly, withdrawal of the prior art rejections against the claims is not respectfully requested.

Conclusion

In view of the foregoing amendments and remarks, Applicants submit that the issues raised in the Office Action of July 13, 2005 and Advisory Action of September 28, 2005, have all been addressed, and that the present application is condition for allowance.

It is believed that no additional fees are due with respect to the number of claims. In the event that it is determined that any additional fees are due in such respects, the Director is hereby authorized to charge the undersigned's Deposit Account No. 50-0311, reference attorney docket no. 27799-023, Customer No. 35437.

Applicants' undersigned attorney may be reached in our New York office by telephone at (212) 692-6803. All correspondence should continue to be directed to our address given below.

Respectfully submitted,



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